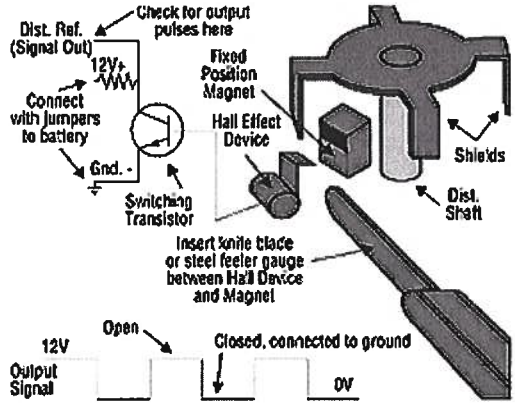
Hall-Effect Position Sensors

Hall-Effect position sensors have replaced ignition points in many distributors and are used to directly detect crank and/or cam position on distributorless ignition systems (DIS), telling the computer when to fire the coils. Hall-Effect sensors produce a voltage proportional to the strength of a magnetic field passing through them, which can come from a permanent magnet or an electric current. Since magnetic field strength is proportional to an electric current, Hall-Effect sensors can measure current. They convert the magnetic field into millivolts that can be read by a DMM.



Click on graphic to view larger image.

Fig 14 - Checking Hall-Effect Sensors
Check for reference voltage from battery at connector. Hall sensors require power where magnetic sensors do not. To test sensor: connect +12V from battery to power terminal, set DMM to measure volts and connect it between signal output and ground. Insert feeler blade between sensor and magnet while watching for the bar graph to move. Signal should vary from 12V to 0V.

Return to Automotive home page

Return to Beat the Book page

© 1995 - 2000 Fluke Corporation
Privacy Statement